

**IN THE CLAIMS:**

- The claims are for reference only.

Claim 1 (Previously Presented): A data reproducing device for reproducing data recorded in a data storing disk,

said data reproducing device comprising:

a pickup unit for reading a copy protection information which is written in advance as a surface shape such as slits or corrugations in a region over a substrate of said data storing disk other than a data storage region; and

a copy protection unit adapted, when an encrypted data over the data storage region of said data storing disk is copied in response to a demand of an external device, to perform an authentication with reference to the copy protection information read by said pickup unit thereby to output the information, as contained in the copy protection information and relating to a secret key, to the external device which is recognized to be correct through the authentication,

a secret information is written in advance as the surface shape such as slits or corrugations in the region over a substrate other than a data storage region.

Claim 2 (Previously Presented): A hard disk comprising:

a disk having a copy protection information written in advance as the surface shape such as slits or corrugations in a pre-recording region over a substrate other than a data storage region;

a pickup unit for reading the copy protection information over said disk; and

a copy protection unit adapted, when an encrypted data over the data storage region of said data storing disk is copied in response to a demand of an external device, to perform an authentication with reference to the copy protection information read by said pickup unit thereby to output the information, as contained in the copy protection information and relating to a secret key, to the external device which is recognized to be correct through the authentication,

a secret information is written in advance as the surface shape such as slits or corrugations in the region over a substrate other than a data storage region.

Claim 3 and 4 (Canceled).

Claim 5 (Previously Presented): A data reproducing device for reproducing data recorded in a data storing disk, comprising:

a magnetic head for reading a program which is magnetically recorded in advance in the region over a substrate of a data storing disk other than a data storage region; and

a reproduce control unit for reproducing the program recorded in the region, through the magnetic head at the time of reproducing the data from the region over the substrate of said data storing disk other than the data storage region,

a secret information is written in advance as the surface shape such as slits or corrugations in the region over a substrate other than a data storage region.

Claim 6 (Previously Presented): A data reproducing device for reproducing data recorded in a data storing disk, comprising:

a magnetic head for reading a program which is magnetically recorded in advance in a region over a substrate of a data storing disk other than a data storage region; and

a reproduce/record control unit for reproducing the program recorded in the region, through said magnetic head at a time of reproducing the data from the region over the substrate of said data storing disk other than the data storage region, and for recording a program or data in the region through said magnetic head at a data recording time,

a secret information is written in advance as the surface shape such as slits or corrugations in the region over a substrate other than a data storage region.

Claim 7 (Previously Presented): A hard disk comprising:

a disk having a program magnetically recorded in advance in the region over a substrate other than a data storage region;

a magnetic head for reading the program which is recorded in the region over said disk; and

a reproduce control unit for reproducing the program recorded in the region, through said magnetic head at a time of reproducing the data from the region over said substrate of said disk other than the data storage region,

a secret information is written in advance as the surface shape such as slits or corrugations in the region over a substrate other than a data storage region.

Claim 8 (Previously Presented): A hard disk comprising:

a disk having a program magnetically recorded in advance in a region over a substrate other than a data storage region;

a magnetic head for reading the program which is recorded in the region over said disk; and

a reproduce/record control unit for reproducing the program recorded in the region, through said magnetic head at a time of reproducing the data from the region over said substrate of said disk other than the data storage region, and for recording a program or data in the region through said magnetic head at a data recording time,

a secret information is written in advance as the surface shape such as slits or corrugations in the region over a substrate other than a data storage region.

Claim 9 through 12 (Canceled).

Claim 13 (Previously Presented): The data storing disk used in the data reproducing device according to any one of claims 1, 5 and 6 wherein

a program is magnetically recorded in a region over a substrate other than a data storage region.

Claim 14 (Previously Presented): The data storing disk used in the hard disk according to any one of claims 2, 7 and 8 wherein

a program is magnetically recorded in a region over a substrate other than a data storage region.

Claim 15 (Previously Presented): The data storing disk according to any one of claims 1, 5 and 6, wherein

the secret information is a copy protection information.

Claim 16 (Previously Presented): The data storing disk according to any one of claims 2, 7 and 8, wherein

the secret information is a copy protection information.

Claim 17 (Previously Presented): The data storing disk according to Claim 13, wherein the secret information is a copy protection information.

Claim 18 (Previously Presented): The data storing disk according to Claim 14, wherein the secret information is a copy protection information.

Claim 19 (Previously Presented): The data storing disk according to any one of claims 1, 5 and 6, wherein a program or data is capable of being magnetically recorded/reproduced in/from the region over said substrate other than the data storage region.

Claim 20 (Previously Presented): The data storing disk according to any one of claims 2, 7 and 8, wherein a program or data is capable of being magnetically recorded/reproduced in/from the region over said substrate other than the data storage region.

Claim 21 (Previously Presented): The data storing disk according to Claim 13, wherein a program or data is capable of being magnetically recorded/reproduced in/from the region over said substrate other than the data storage region.

Claim 22 (Previously Presented): The data storing disk according to Claim 14, wherein a program or data is capable of being magnetically recorded/reproduced in/from the region over said substrate other than the data storage region.

Claim 23 (Previously Presented): A hard disk according to Claim 2, wherein general-purpose application software matching the external device can be recorded in advance in the pre-recording region of the disk.